

IMAGE COMPRESSION AND EXPANSION APPARATUS AND PIXEL NUMBER
INCREASING APPARATUS

ABSTRACT OF THE DISCLOSURE

An image compression and expansion apparatus reproduces an expanded image corresponding to an original image from a reduced image. The original image data is comprised of approximately 1000 x 600 pixel values P_{yx} . A first matrix M_1 comprised of 64 x 64 pixel values P_{yx} is extracted from the original image data. Regarding the original image data arranged in the first matrix M_1 , an average value of 8 x 8 pixel values P_{yx} forming a block B_1 is obtained, and thus a second matrix M_2 is generated using the average value as a single pixel value. The pixel values of the second matrix M_2 is subject to two dimensional discrete cosine transformation to obtain a matrix M_D comprised of 8 x 8 DCT coefficients. Expanded two dimensional inverse discrete cosine transformation is applied to the matrix M_D to obtain a third matrix M_3 comprised of 64 x 64 pixel values. The expanded image data comprising the third matrix M_3 is transformed to the same coordinate system as the original image data and recorded on to the recording medium.